The strongly pointed lemmas and arching paleas somewhat resemble those of *Eragrostis secundiflora* Presl of North America and *E. harpachnoides* Hack. of Yunnan, China, but are much more subulate than either. In *E. harpachnoides* the spikelets fall entire, the curved pedicels disarticulating.

Lepturus repens (Forst.) R. Br. Prodr. Fl. Nov. Holl. 207. 1810.

Rottboellia repens Forst. f. Prodr. 9. 1786.

Coast between Oriomo and Fly Rivers, *Brass 6411;* sandbinding grass, not common on beach.

Islands, Ceylon to Formosa, Philippines, New Guinea, Polynesia and Hawaiian Islands.

Aristida meraukensis Henrard, Meded. Rijks Herb. Leiden **54**[c] (as 55[c]): 725. 1933.

Western Division: Mabaduan, *Brass 6530, 6576;* common on sandy ridges in savanna forests.

Endemic.

Eleusine indica (L.) Gaertn. Fruct. et Sem. **1**: 8. 1788.

Cynosurus indicus L. Sp. Pl. 72. 1753.

Western Division: Daru Island, *Brass 6302;* common weed in native gardens.

Tropics and warm temperate regions of both hemispheres.

Dactyloctenium aegyptium (L.) Richt. Pl. Eur. **1**: 68. 1890.

Cynosurus aegyptius L. Sp. Pl. 72. 1753.

Western Division: Daru Island, *Brass 6304;* weed in native gardens, not common.

Tropics and warm temperate regions of both hemispheres.

Chloris inflata Link, Enum. Pl. **1**: 105. 1821.

Andropogon barbatum L. Mant. **2**: 302. 1771; not *A. barbatum* L. 1759.
Chloris barbata Swartz, Fl. Ind. Occ. **1**: 200. 1797.
Chloris paraguayensis Steud. Syn. Pl. Glum. **1**: 204. 1854.

Western Division: Daru Island, *Brass 6403;* plentiful on waste ground about the township.

Tropics of both hemispheres.

Oryza minuta Presl, Reliq. Haenk. **1**: 208. 1830.

Oryza manillensis Merr. Philip. Jour. Sci. Bot. **3**: 219. 1908.

Western Division: Mabaduan, *Brass 6547;* scattered in shallow

swamp shaded by swampy rain forest; plants about 1 m. tall; nodes purple, panicle erect.

Tropical Asia, East Indies, Philippines, New Guinea.

The name *Oryza latifolia* Desv. has been misapplied to this species.

Oryza Ridleyi Hook. f. Fl. Brit. Ind. **7**: 93. 1896.

Oryza stenothyrsus K. Schum. in K. Schum. & Lauterb. Nachtr. Fl. Deutsch. Südsee 57. 1905.

Western Division: Tarara, Wassi Kussa River, *Brass 8721;* in small swamp.

Malay Peninsula, Sumatra, Borneo, New Guinea.

Oryza rufipogon Griff. Not. Pl. As. **3**: 5. *pl. 144. f. 2.* 1851.

Middle Fly River: Lake Daviumbu, *Brass 7564;* dominant over large areas of grass-swamp, culms to 3 m. or more long, the leafy summit rising about 1 m. above the surface of the water; awns pink.

India, Ceylon, Borneo, New Guinea.

This form is commonly referred to *Oryza sativa* L. but it appears to be a perennial.

Leersia hexandra Swartz, Prod. Veg. Ind. Occ. 21. 1788.

Homolocenchrus hexandrus Kuntze, Rev. Gen. Pl. **2**: 777. 1891.

Middle Fly River: Lake Daviumbu, *Brass 7601;* margins of swamps and lakes, gregarious in half submerged stands, rising about 1 m. above the surface of the water.

Tropics of both hemispheres.

Leptaspis angustifolia Summerh. & Hubb. Kew Bull. **1927**: 40, 78. 1927.

Western Division: Tarara, Wassi Kussa River, *Brass 8584;* rain forest, in broken shade.

Fiji Islands.

Arundinella nepalensis Trin. Gram. Pan. 62. 1826.

Western Division: Tarara, Wassi Kussa River, *Brass 8664;* savanna forest; rare grass on swampy ground.

China, India to Indo-China; New Guinea.

A slender glabrous form with narrow blades and panicle less densely flowered than usual.

Digitaria quinhonensis A. Camus, Bull. Mus. Hist. Nat. Paris **27**: 456. 1921.

Western Division: Tarara, Wassi Kussa River, *Brass 8695;* common weed in deserted gardens.

Indo-China and New Guinea.

Brachiaria subquadripara (Trin.) Hitchc. Lingnan Sci. Jour. **7**: 214. 1931.

Panicum subquadriparum Trin. Gram. Pan. 145. 1826.

Western Division: Daru Island, *Brass 6301;* common weed in native gardens.

India to Philippines, Australia and Polynesia.

Paspalum scrobiculatum L. Mant. Pl. **1**: 29. 1767.

Paspalum kora Willd. Sp. Pl. **1**: 332. 1797.

Palmer River, 1 mile above junction with Black River, *Brass 6948;* sandbinder on gravel banks.

Tropics of the eastern hemisphere.

Panicum reptans L. Syst. Nat. ed. 10, **2**: 870. 1759.

Panicum prostratum Lam. Tabl. Encycl. **1**: 171. 1791.
Urochloa reptans Stapf in Prain, Fl. Trop. Afr. **9**: 601. 1920.

Western Division: Daru Island, *Brass 6303;* matted on damp soil in native garden clearings.

Tropics of both hemispheres.

Panicum macrocladum Chase, sp. nov.

Perenne; culmi erecti vel ascendentes, 1–1.2 m. alti; vaginae papilloso-hirsutae; ligula hirsuta, 2 mm. longa; laminae planae, elongatae, 4–7 mm. latae, utrinque hirsutae; panicula breviter exserta, 40–48 cm. longa, nutans, ramis elongatis subcapillaribus scabridis; spiculae 3.2–3.5 mm. longae, hiantes, glabrae; gluma prima 2.5–3 mm. longa, acuminata, 5–7-nervia; gluma secunda et lemma sterile subaequalia, subacuminata, 5–7-nervia; fructus 2 mm. longus, 0.9 mm. latus.

Perennial, culms erect or ascending, 1–1.2 meters tall, glabrous; nodes glabrous, often black; foliage olivaceous, the sheaths much shorter than the internodes, papillose-hirsute, the upper sometimes nearly glabrous toward the base; ligule a dense ring of hairs about 2 mm. long; blades flat, 18–30 cm. long, 4–7 mm. (mostly 5 mm.) wide, loosely hirsute on both surfaces or scabrous only toward the attenuate apex, the margins scabrous; panicle short-exserted, 40–48 cm. long, nodding, with numerous subcapillary compound branches as much as 25 cm. long, the slender angled axis and branches scabrous, the branches and branchlets finally spreading, the spikelets mostly aggregate towards the ends of the branchlets, the scabrous pedicels from about as long as the spikelets to twice as long; spikelets 3.2–3.5 mm. long, mostly gaping at the summit, glabrous; first glume from one fourth shorter to nearly as long as the

spikelet, 5–7-nerved, broad, clasping, acuminate; second glume slightly longer than the sterile lemma, both tapering to a relatively blunt but infolded and seemingly sharp tip, 5–7-nerved; fruit 2 mm. long, 0.9 mm. wide, elliptic, smooth and shining.

Type: *Brass 6568,* collected in April 1936, sporadic on damp soil in savanna forest, Mabaduan, Western Division. Other collections are: *Brass 6350,* Daru Island, swampy ground in savanna forest; *Macgregor 18,* "Kuba Kuba," New Guinea.

This species somewhat resembles *Panicum mindanaense* Merr. and *P. caudiglume* Hack., but differs from both in being perennial, taller, and with much longer narrower blades and longer panicles, the first glume not pointed beyond the spikelet as in *P. caudiglume,* and the panicle branches and spikelets much longer than in *P. mindanaense.*

Panicum Braunii Mez, (Bot. Jahrb. **56:** Beibl. **125:** 5. 1921; not *P. Braunii* Steud. 1854), described from Bismarck Archipelago, appears to be this species. The type (*Braun 8*) in the Berlin Herbarium agrees with the Brass collections but not entirely with Mez's description.

? **Panicum papuanum** Mez, Bot. Jahrb. **56:** Beibl. **125:** 6. 1921.

Western Division: Mabaduan, *Brass 6485;* common on old grass-grown garden lands, especially on wet soils.

Endemic.

The type of *Panicum papuanum* has not been examined but *Brass 6485* agrees well with the inadequate description. The type cited is "Insel Waighiou (Lesson)." According to Lasègue (Mus. Bot. Delessert, p. 77. 1845) Lesson visited Waigiou, one of the Papuan islands, in September 1825. This is undoubtedly the island Waig-eoe off the northwest corner of New Guinea.

A Papuan species not represented in the Brass collection is the following:

Panicum cruciabile Chase, nom. nov.

Panicum reticulatum Thwaites in Trimen, Jour. Bot. **23:** 271. 1885; not *P. reticulatum* Torr. 1852, nor Griseb. 1857.

"Hewessee, Pasdun Korle, Aug. 1865 (C.P. [Ceylon Plants] 3890 in Herb. Perad.)."

A specimen of "3890 Thwaites C P" with the name in Thwaites' script is in the U. S. National Herbarium. Hooker (Fl. Brit. Ind. **7:** 48. 1896.) refers *Panicum reticulatum* Thwaites "(non Griseb.)" to *P. caesium* Nees (Hook. Kew Jour. **2:** 97. 1850) and is followed by Trimen (Handb. Fl. Ceylon **5:** 151. 1900), but *P. caesium* Nees in 1850 (based on *Cuming 652* from the Philippines, but scarcely described) is invalidated by *P. caesium* Nees in Hook. & Arn. Bot. Beechey Voy. 235. 1836 (an ally of *Echinochloa crusgalli* [L.] Beauv.)

Merrill (Enum. Philippine Fl. Pl. **1**: 69. 1925) refers *Panicum caesium* Nees 1850 to *Panicum tuberculatum* Presl; but examination of Presl's type, collected by Haenke and said to come from Luzon, shows it to be the same as *Panicum Mertensii* Roth (*P. megiston* Schult.) of the American tropics. Many of Haenke's localities have been found to be erroneous; this collection doubtless came from Central America or Mexico. Alston (Suppl. to Trimen, Handb. Fl. Ceylon 312. 1931) refers *Panicum caesium* Nees 1850, not 1836, to *P. luzonense* Presl. It may be that *Cuming 652* does belong to *P. luzonense*, which has been confused in herbaria with the species described as *P. reticulatum* Thwaites. The latter is a very coarse plant, 1 m. tall or more, with strongly tuberculate-hispid sheaths and panicles 30 to 50 cm. long, the long subsimple branches commonly curving at maturity, the spikelets turgid, 2.5 mm. long, the purple glumes and sterile lemma subacute, reticulate.

The name proposed above refers to the coarse irritating hairs on the sheaths, which readily break off and irritate the skin. The grass is found in Ceylon, Burma, the Philippines, and New Guinea, whence there are two collections: Strickland River, *W. Bauerlen 61* in 1885 (from National Herbarium of Victoria, Melbourne, Australia), and "Ambasi, Papua," *Copeland King 1012*.

Because this has been confused with other species the following specimens of *P. cruciabile* are also cited:

Ceylon: *Thwaites C P 3890* (type collection in several herbaria). Burma: *McKerral A18*. Philippines: *Bureau of Science 8122, 23084, 43968; Loher 1716; Merrill 123, 1469, 4229, 6707*.

Panicum viale Chase, sp. nov.

Perenne; culmi erecti vel ascendentes, 0.9–1 m. alti; vaginae tuberculato-hispidae; ligula vix 1 mm. longa; laminae planae, 9–20 cm. longae, 2–4 mm. latae, valde tuberculato-hispidae; paniculae breviter exsertae, 20–32 cm. longae, ramis patentibus usque ad 12 cm. longis, scabridis; spiculae 2 mm. longae, 0.8 mm. latae, apiculatae, glabrae; gluma prima 1 mm. longa, amplectans, abrupte apiculata, 5-nervia; gluma secunda et lemma sterile subaequalia, abrupte subacuminata, 7-nervia; fructus 1.5 mm. longus, 0.8 mm. latus.

Perennial; culms tufted, erect or ascending, 90–100 cm. tall, sparingly branching, tuberculate-hispid; nodes and sheaths tuberculate-hispid like the culms, the sheaths much shorter than the internodes; ligule a ring of stiff hairs scarcely 1 mm. long; blades flat, rather stiff, 9–20 cm. long, 2–4 mm. wide (blades of the basal shoots shorter and narrower), strongly tuberculate-hispid; panicles short-exserted, 20–32 cm. long, with numerous slender spreading compound branches, as much as 12 cm. long, the axis and branches slightly flexuous, but rather stiff, angled, scabrous, spikelet-bearing toward the ends, the pedicels about as long as the spikelets or somewhat longer; spikelets 2 mm. long, 0.8 mm. wide, plump,

abruptly short-pointed, glabrous; first glume half as long as the spikelet, clasping, abruptly pointed, 5-nerved, the nerves obscurely anastomosing; second glume and sterile lemma 7-nerved, acute, but the tips usually inrolled forming sharp points, equal, or the lemma slightly shorter; fruit 1.5 mm. long, 0.8 mm. wide, smooth and shining, at maturity olive-brown, the 5 nerves of the lemma showing as pale stripes.

Type: *Brass 3631,* collected April 11, 1933, fairly common on roadsides, Rona, Laloki River, Central Division. (Previously referred to *Panicum tuberculatum* Presl.)

This species, known only from this collection, resembles *Panicum cruciabile* Chase in its harsh tuberculate pubescence, but is a much more slender plant with much narrower blades, smaller panicles, and smaller spikelets.

Panicum incomtum Trin. Gram. Pan. 200. 1826; Sp. Gram. Ic. **2:** *pl. 232.* 1829.

Panicum sarmentosum of Hook. f. Fl. Brit. Ind. **7:** 54. 1896; not Roxburgh, 1820.

Middle Fly River: Lake Daviumbu, *Brass 7957;* large entangling grass in old village clearing.

India, southern China, and East Indies to the Philippines and New Guinea.

Panicum sarmentosum Roxb., described from Sumatra, has a larger much more open panicle than has *P. incomtum,* the panicle branches not viscid. It is far less common and less widely distributed than *P. incomtum.*

Panicum nodosum Kunth, Rév. Gram. **1:** Suppl. IX. 1830.

Panicum multinode Presl, Reliq. Haenk. **1:** 303. 1830; not *P. multinode* Lam. 1797.
Panicum Arnottianum Nees in Steud. Syn. Pl. Glum. **1:** 59. 1854.
Hemigymnia multinodis Stapf in Prain, Fl. Trop. Afr. **9:** 742. 1920.
Hemigymnia Arnottiana Stapf in Prain, Fl. Trop. Afr. **9:** 742. 1920.
Ottochloa Arnottiana Dandy, Jour. Bot. **69:** 55. 1931.
Ottochloa nodosa Dandy, Jour. Bot. **69:** 55. 1931.

Western Division: Daru Island, *Brass 6260;* abundant, covering the ground under shade of rain forest margins.

India to Indo-China, Sumatra, Java, Borneo, Philippines, and New Guinea.

This specimen agrees with the original description of *P. Arnottianum* Nees, having sparsely pilose blades and simple panicle branches with pubescent spikelets on short branchlets. *Panicum nodosum,* based on

P. multinode Presl, has an open panicle, the glabrous spikelets less clustered. The numerous intermediate specimens and the common geographic distribution of the two forms indicate a variable species. For a further discussion of the application of the accepted binomial see Merrill, Bull. Torr. Bot. Club **60:** 637. 1933.

Panicum marginatum R. Br. Prodr. Fl. Nov. Holl. 190. 1810.

Entolasia marginata (R. Br.) Hughes, Kew Bull. **1923:** 331. 1923.

Western Division: Tarara, Wassi Kussa River, *Brass 8654;* river bank, dry scrub.

Australia.

Cleistochloa subjuncea C. E. Hubb. in Hook. Ic. Pl. **33:** *pl. 3209.* 1933.

Panicum subjunceum Domin, Bibl. Bot. **85:** 314. *f. 70.* 1915; not *P. subjunecum* Ekman, 1911.

Cleistochloa Hubbardiana Henr. Blumea **3:** 161. 1938. Based on *C. subjuncea* C. E. Hubb.

Western Division: Tarara, Wassi Kussa River, *Brass 8735;* on raw clay soils.

Australia.

Hymenachne amplexicaulis (Rudge) Nees, Agrost. Bras. 276. 1829.

Panicum amplexicaule Rudge, Pl. Guian. **1:** 21. *pl. 27.* 1805.

Middle Fly River: Lake Daviumbu, *Brass 7613;* sporadic in stands of *Oryza* and *Leersia* in swamp margins; culms ascending, 1.5 to 2 m. long.

American tropics, India and Ceylon to Indo-China, Formosa, Java, Borneo and New Guinea.

The names *Panicum myuros* Lam. and *Hymenachne myuros* Beauv. have been commonly misapplied to this species.

Isachne globosa (Thunb.) Kuntze, Rev. Gen. Pl. **2:** 778. 1891.

Milium globosum Thunb. Fl. Japon. 49. 1784.

Middle Fly River: Lake Daviumbu, *Brass 7602;* plentiful on shores of lake; culms purple.

China to Philippines and East Indies to New Guinea and Australia.

Echinochloa stagnina (Retz.) Beauv. Agrost. 53, 161, 171. 1812.

Panicum stagninum Retz. Obs. Bot. **5:** 17. 1789.

Fly River: About 30 miles below Everill Junction, *Brass 6585;* forms pure stands along river banks in water more than 6 feet deep.

India and East Indies to Philippines and New Guinea; also tropical Africa.

Pseudoraphis squarrosa (L.) Chase, comb. nov.

Andropogon squarrosus L. f. Suppl. Pl. 433. 1781.
Panicum asperum Koen. Naturforscher **23**: 209. 1788; not *P. asperum* Lam. 1778.
Chamaeraphis aspera Nees in Wall. List no. 8679. 1849. Based on *Panicum asperum* Koen.
Pseudoraphis aspera Pilger, Notizbl. Bot. Gart. Berlin **10**: 210. 1928.

Middle Fly River: Lake Daviumbu, *Brass 7600;* slender floating aquatic, rooting in shallows of swamps, culms often 3 to 4 m. long. Western Division: Penzara, between Morehead and Wassi Kussa Rivers, *Brass 8470;* in shallows of permanent waterhole.

India to Borneo, the Philippines and New Guinea.

Cenchrus Brownii Roem. & Schult. Syst. Veg. **2**: 258. 1817.

Cenchrus inflexus R. Br. Prodr. Fl. Nov. Holl. 195. 1810; not *C. inflexus* Poir. 1804.
Cenchrus viridis Spreng. Syst. Veg. **1**: 301. 1825.

Western Division: Daru Island, *Brass 6395;* plantation weed, not plentiful.

Indo-China and the East Indies to the Philippines, New Guinea and Australia, early introduced in tropical America.

Dimeria falcata Hack. in DC. Monogr. Phan. **6**: 85. 1889.

Middle Fly River: Lake Daviumbu, *Brass 7806;* gregarious on the wetter savannas.

South China, Indo-China and New Guinea.

Saccharum arundinaceum Retz. Obs. Bot. **4**: 14. 1786.

Fly River: About 20 miles below Everill Junction, *Brass 6582;* in pure stands, 3 to 5 m. tall, occupying many miles of the swampy banks of the middle river. [Inflorescence affected by a smut.]

Warm temperate Asia and East Indies to the Philippines and New Guinea.

Ischaemum arundinaceum F. Muell. in Benth. Fl. Austral. **7**: 519. 1878.

Middle Fly River: Lake Daviumbu, *Brass 7900;* dominant, often only grass over large areas of low savanna and wet plain, coarse matted growth 1 to 1.5 m. high. Lower Fly River (east bank): Gaima, *Brass 8259;* common in savanna forests. Western Division: Tarara, Wassi Kussa River, *Brass 8751;* savanna forest, not common.

Australia.

Ischaemum aristatum L. subsp. **barbatum** Hack. in DC. Monogr. Phan. **6**: 204. 1889.

Ischaemum barbatum Retz. Obs. Bot. **6**: 35 [error for 25]. 1791.

Western Division: Daru Island, *Brass 6253;* frequent in tall grass cover of savanna forests.

India, Indo-China, Java and New Guinea.

In this specimen the nodules on the first glume of the perfect spikelets are obsolete or nearly so.

Ischaemum pubescens Merr. Philip. Jour. Sci. Bot. **9**: 264. 1914.

Lower Fly River (east bank): Gaima, *Brass 8260;* occasional in savanna forest grass cover; culms often reclining, to 1.5 m. long.

Philippines.

Sclerandrium truncatiglume (F. Muell.) Stapf & Hubb. in Hook. Ic. Pl. **33**: *pl. 3262*. 1935.

Ischaemum truncatiglumis F. Muell. in Benth. Fl. Austral. **7**: 518. 1878.

Western Division: Tarara, Wassi Kussa River, *Brass 8537, 8665;* savanna forest, occasional on stream banks.

Australia.

Eremochloa bimaculata Hack. in DC. Monogr. Phan. **6**: 265. 1889.

Western Division: Wuroi, Oriomo River, *Brass 5743* (previously referred to *Eremochloa ciliaris* [L.] Merr.); rare on gray-soil savanna ridges, alt. 10–30 m. Tarara, Wassi Kussa River, *Brass 8408;* savanna forests, common.

India.

Rottboellia exaltata L.f. Suppl. 114. 1781.

Manisuris exaltata Kuntze, Rev. Gen. Pl. **2**: 779. 1891.
Stegosia exaltata Nash, N. Amer. Fl. **17**: 84. 1909.

Western Division: Daru Island, *Brass 6296;* plentiful, forming dense brakes on wet garden land behind mangroves; culms erect, to 2 m. tall; hairs on foliage irritating to the skin.

Tropics of both hemispheres.

Thaumastochloa rariflora (F. M. Bailey) C. E. Hubb. in Hook. Ic. Pl. **34**: *pl. 3313*. 1936.

Rottboellia rariflora F. M. Bailey, Dept. Agric. Brisbane Bot. Bull. **8**: 86. 1893.

Western Division: Mabaduan, *Brass 6554;* occasional under the dominant *Themeda triandra* Forsk., in savanna forests. Wuroi, Oriomo River,

alt. 30 m., *Brass 6014;* uncommon, on gray-soil savanna ridge. (Previously referred to *Ophiurus pubescens* [Benth.] Domin.)

Australia.

Thaumastochloa C. E. Hubb., with *Ophiurus pubescens* as type, was published (Hook. Ic. Pl. **34:** *pl. 3313–3314.* 1936) after Part I of The Papuan Grasses appeared. A specimen of *Thaumastochloa pubescens* (Benth.) C. E. Hubb. was later received by the U. S. National Herbarium. The raceme in that is longer, with 4–9 spikelets, the first glumes strongly rugose. This species has not been found in New Guinea. In *T. rariflora* the raceme is reduced to 1 or 2 spikelets, the glumes smooth.

Andropogon sanguineus (Retz.) Merr. Philip. Jour. Sci. Bot. **12:** 101. 1917.

Rottboellia sanguinea Retz. Obs. Bot. **3:** 25 [13]. 1783.

Middle Fly River: Lake Daviumbu, *Brass 7933;* occasional on sour savanna slopes.

Southern China and India and Indian Archipelago to Indo-China, Philippines and New Guinea.

Andropogon annulatus Forsk. var. **monostachys** F. Muell.; Benth. Fl. Austral. **7:** 531. 1878.

Western Division: Daru Island, *Brass 6404;* growing about the wharf, apparently of recent introduction. Central Division: Port Moresby, 200 m. alt., *Brass 8787;* common on roadsides.

Australia.

Vetiveria filipes (Benth.) C. E. Hubb. Kew Bull. **1934:** 444. 1934.

Chrysopogon elongatus (R. Br.) Benth. var. *filipes* Benth. Fl. Austral. **7:** 539. 1878.

Western Division: Penzara, between Morehead and Wassi Kussa River, *Brass 8460;* savanna-forests, on alluvial flats of creek. Tarara, Wassi Kussa River, *Brass 8579;* covering small tidal flats behind mangrove fringe.

Australia.

Rhaphis aciculata (Retz.) Desv. Opusc. 69. 1831.

Andropogon aciculatus Retz. Obs. Bot. **5:** 22. 1789.
Rhaphis trivialis Lour. Fl. Cochinch. 553. 1790.
Chrysopogon aciculatus Trin. Fund. Agrost. 188. 1820.

Western Division: Daru Island, *Brass 6426;* troublesome weed on roadsides and town allotments.

India and southern China to the Philippines, New Guinea, Australia and Polynesia.

Heteropogon triticeus (R. Br.) Stapf, Kew Bull. **1912:** 432. 1912.

Andropogon triticeus R. Br. Prodr. Fl. Nov. Holl. 201. 1810.

Western Division: Mabaduan, *Brass 6538;* locally dominant on drier soils of savanna forest, a few culms in the clumps to 2.5 m. tall.

Ceylon, Java, the Philippines, New Guinea and Australia.

Themeda australis (R. Br.) Stapf in Prain, Fl. Trop. Afr. **9:** 420. 1919.

Anthisteria australis R. Br. Prodr. Fl. Nov. Holl. 200. 1810.

Central Division: Port Moresby, 200 m. alt., *Brass 8782;* open savanna forest; dominant grass on stony hillsides; clumps 1.5–2 m. tall.

Australia.

Themeda frondosa (R. Br.) Merr. Dept. Agr. Nat. Res. Bur. Sci. Manila Publ. No. **9:** 89. 1917.

Anthisteria frondosa R. Br. Prodr. Fl. Nov. Holl. 200. 1810.

Western Division: Mabaduan, *Brass 6474;* locally abundant on sandy soil in savanna forests.

Indian Archipelago to New Guinea and New Caledonia.

United States National Herbarium,
Washington, D. C.

COMBRETACEAE OF THE 1936 ARCHBOLD EXPEDITION (FLY RIVER, BRITISH NEW GUINEA)

A. W. Exell

Combretum trifoliatum Vent., Choix de Pl. t. 58 (1808).

Western Division: Middle Fly River, Lake Daviumbu, fl. Sept. 1936, *L. J. Brass 7709*, rain-forest; large scrambling shrub, plentiful on shores of lake.

This species is widespread in the Indo-Malayan region from Assam and Indo-China to New Guinea, but it is apparently absent from the Philippines. The specimen collected extends the known range of the species southwards, as the only other New Guinea records are from the Sepik region in the north-east, in the former German colony.

Quisqualis indica L., Sp. Pl. ed. 2, **1**: 556 (1762).

Western Division: Lower Fly River, east bank opposite Sturt Island, fl. Oct. 1936, *L. J. Brass 8198*, scrambling on river-banks and commonly climbing to the tops of tallest forest-trees; flowers white, later red.

This species, often cultivated in the tropics, is indigenous in the Indo-Malayan region and undoubtedly wild in New Guinea.

Terminalia Catappa L., Mant. **1**: 128 (1767).

Western Division: coast between Oriomo and Fly Rivers, fl. March 31, 1936, *L. J. Brass 6416*, one of the chief components of beach-forests; large spreading tree with thick tessellate bark; flowers white.

Widespread coastal species in the Indo-Malayan and Polynesian regions; often planted in other parts of the Tropics.

Terminalia Copelandii Elm., Leaflets Philipp. Bot. **5**: 1759 (1913).

Western Division: Lower Fly River, east bank opposite Sturt Island, fl. Oct. 1936, *L. J. Brass 8027*, very conspicuous flat-topped tree towering above general level of the flood-plain forests; trunk heavily buttressed; bark thick, brown, long-fissured, peeling in small suberose scales; wood brown, tough; flowers white; tree bare of leaves in Sept.-Oct.

If this is correctly identified it is an interesting discovery of a species hitherto known, as far as I am aware, only from Palawan, Philippine

Islands, where it grows in the coastal forests, presumably in very similar conditions to those in which it was found growing by Brass in Papua. The leaves, inflorescences and twigs agree very well with the Palawan species but in the absence of fruit, often of great taxonomic value in this genus, the identification must remain doubtful.

Terminalia cf. **Kaernbachii** Warb. in Bot. Jahrb. **18**: 201 (1893), ex descr.

Western Division: Palmer River, two miles below the junction of Black River, fr. June, 1936, *L. J. Brass 6973,* common, very conspicuous tree in riverine forests, 35 m. tall, straight bole, flange-buttressed base; bark grey flaky, inner purplish; leaves at ends of branchlets; fruits red, fleshy, sessile, solitary on peduncle.

I have seen no specimen of *T. Kaernbachii* but *Brass 6973* agrees well with the description except that the fruit is a little smaller than in *T. Kaernbachii* (6.5 cm. long instead of 8 cm. long) and more flattened. *Terminalia Kaernbachii* is endemic to New Guinea.

Terminalia aff. **edulis** Blanco, Fl. Filip. ed. 2, 265 (1845).

Western Division: two miles below junction of Black River, fr. June, 1936, *L. J. Brass 6970,* tree 20 m., leaves thin, red when old, fruit green, compressed, about 2 cm. long, 1 cm. in diam.; same locality, fr. July, 1936, *L. J. Brass 7288,* principal primary forest tree on sandy silt-loams of river flood-plains, up to 30 m. tall with well-developed flank-buttresses; bark thin, fibrous, suberose, with vertical furrows; same locality, fl. July, 1936, *L. J. Brass 7350,* abundant in forests of lower ridges; large semi-deciduous canopy-tree; trunk spur-buttressed; bark brown, thin, flaky, wood pale, of cedar-like appearance, leaves, (still young) concave; flowers white; Fly River, between junctions of Alice and Elevata Rivers, fr. Aug., 1936, *L. J. Brass 7388,* semi-deciduous tree attaining to 20 m., on river-banks.

These specimens show a close general resemblance to *T. edulis* Blanco, a common species in the Philippine Islands. The Papuan specimens, however, have a sparser indumentum at all stages, the leaves, petioles and twigs becoming practically glabrous. Collections from intermediate regions are required to show whether the range and variation are discontinuous or not.

Terminalia hypargyrea Laut. & K. Schum., Fl. Deutsch. Schutzgeb. Südsee, 467 (1901).

Terminalia sogerensis Bak. f. in Jour. Bot. **61**, Suppl.: 14 (1923).

Western Division: Middle Fly River, Lake Daviumbu, fl. Sept.,